DOCUMENT RESUME

ED 146 410 08 CE 013 402

TITLE An Analysis of National Certification Requirements and Professional Development Standards for Vocational Education Personnel. Phase II of a Professional Development Study for Massachusetts, Volume III.
INSTITUTION Boston Univ., Mass. School of Education.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.; Massachusetts State Dept. of Education, Boston. Div. of Occupational Education.
PUB DATE Sep 77
NOTE 36p.; For related documents see ED 137 570, CE 013 400-402, and CE 013 844

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Academic Standards; *Administrative Personnel; Administrator Qualifications; *Career Education; *Certification; Educational Research; National Surveys; Performance Based Teacher Education; State Standards; *Teacher Certification; Teacher Qualifications; *Vocational Education; *Vocational Education Teachers
IDENTIFIERS Massachusetts; United States

ABSTRACT

This is the third of four volumes reporting phase 2 of a two-phase project to examine the competency-based vocational teacher education movement and analyze the current state-of-the-art (phase 1), and to assess the implications for preservice, inservice, and leadership level professional development programs in career and occupational education in Massachusetts (phase 2). This volume describes a national survey of the certification requirements and professional development activities for vocational education within state departments of education throughout the United States, to serve as decision-making input for Massachusetts. A six-page survey instrument mailed to fifty state personnel development coordinators for vocational education was designed to elicit pertinent data regarding vocational teacher and administrator certification, trade/technical examinations, experiential requirements, and formal academic requirements. In addition, data was gathered related to the programmatic delivery systems of each state, functions of professional development personnel in each state department, and administration of the certification process. Results of the survey are reported in tables and discussed in detail, including the major areas in which Massachusetts tends to depart from the general national patterns for vocational education. The survey instrument is appended. (TA)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED146410

BOSTON UNIVERSITY
School of Education
Department of Business and Career Education
765 Commonwealth Avenue
Boston, MA 02215

AN ANALYSIS OF NATIONAL CERTIFICATION REQUIREMENTS AND PROFESSIONAL DEVELOPMENT STANDARDS FOR VOCATIONAL EDUCATION PERSONNEL

VOLUME III
Phase II

PROFESSIONAL DEVELOPMENT STUDY FOR MASSACHUSETTS

Dr. Harold S. Resnick
Project Director

Dr. David C. Gardner
Project Consultant

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

September, 1977

CE 013 402

Prepared for:
Division of Occupational Education
Massachusetts Department of Education
31 St. James Avenue
Boston, MA 02116

FUNDED THROUGH FEDERAL LAW

P.L. 90-576

as amended by

P.L. 92-318

PREFACE

This series of reports completes Phase II of a two phase project undertaken by the Department of Business and Career Education, School of Education, Boston University pursuant to a contract with the Office of Professional Development, Division of Occupational Education, Massachusetts Department of Education. This project was funded through Federal Law 90-576, as amended by P.L. 92-318. The duration of the Phase II contract was January 1, 1977 through September 30, 1977.

The first phase of this project was conducted from March, 1976 through September, 1976. The purpose of Phase I was to conduct a "state of the art" research study of competency-based teacher education for vocational education at the teaching, middle management, and administrative levels. Also included were the competencies needed by educational personnel at various levels to implement career education in comprehensive school systems. The final report of that phase was published in January, 1977, and is entitled: Analysis and Synthesis of Competencies Needed by Vocational and Career Educators: Phase I of a Professional Development Study for Massachusetts. This report contains detailed competency statements for all personnel described.

The second phase of this project was conducted with three major objectives, stated as follows.

1. To conduct a content validation of the competencies developed in Phase I of the project. Through the use of a consensus model, the specific validity and applicability of these competencies for Massachusetts was assessed.

2. To conduct a state-wide needs assessment for occupational education personnel in Massachusetts. This was accomplished through a survey sent to

personnel in both comprehensive and regional vocational-technical schools. The survey sought to identify both areas of personnel need (manpower need projections) and the types of professional development most desired.

3. To conduct a national survey of the certification requirements and professional development activities for vocational education within State Departments of Education throughout the United States.

The activities and goals established for Phase II of this project have now been completed. Since they are quite varied, and their results will be used by different groups, they have been published as four separate reports. The titles of these reports are as follows.

1. Validation of the Competencies Needed by Vocational Education Teachers, Middle Managers, and Administrators. Phase II of a Professional Development Study for Massachusetts, Volume I.

2. Validation of the Competencies Needed by School Personnel to Implement Career Education. Phase II of a Professional Development Study for Massachusetts, Volume II.

3. An Analysis of National Certification Requirements and Professional Development Standards for Vocational Education Personnel. Phase II of a Professional Development Study for Massachusetts, Volume III.

4. An Analysis of Current and Projected Personnel and Professional Development Needs in Occupational Education in Massachusetts Public Schools. Phase II of a Professional Development Study for Massachusetts, Volume IV.

The researchers extend appreciation and acknowledgement to a number of individuals and agencies for their efforts on behalf of this project. The Office of Professional Development, Division of Occupational Education, Massachusetts State Department of Education is recognized for its cooperation in achieving the goals of this study. The Office of the Dean, School of Education,

Boston University, and the Department of Business and Career Education are acknowledged for their support in completing the tasks related to this project. Special appreciation is owed to Associate Deans Paul B. Warren and Barry Weiss.

The many educators both within Massachusetts and throughout the United States who willingly gave of their time and participated in some phase of this project are owed a debt of gratitude. These include occupational and vocational educators within Massachusetts; career educators throughout the United States; and professional development personnel in the Vocational Education Divisions of State Departments of Education throughout the country.

A number of individuals provided key consulting roles in the accomplishments of the tasks related to this project. These individuals include Dr. David E. Kapel, Dr. David C. Gardner, Dr. Guy Tardanico, Mr. James C. Carifio, Mr. Robert White, and Mrs. Joyce Malyn-Smith. The authors acknowledge their significant contributions to this effort.

Harold S. Resnick
Project Director

Shirley H. Carmody
Research Assistant

CONTENTS

Preface.....1

Introduction.....1

Procedures.....2

Results.....2

Teacher Certification Requirements.....3

Certification Requirements for Administrators, Middle Managers, and Cooperative Education Coordinators.....6

Performance Examinations.....7

Vocational Program Delivery Systems.....12

Functions of Professional Development Personnel.....13

Summary and Conclusions.....14

Appendix A: Survey Instrument-.....20

Appendix B: Cover Letter and Follow-up Note.....26

LIST OF TABLES

Table 1: Teacher Certification Requirements: Years of Experience.....3

Table 2: Teacher Certification Requirements: Total Semester Credits for Permanent Certification.....4

Table 3: Teacher Certification: Total Semester Hours or Degree Requirements to be Completed Prior to First Teaching Assignment.....5

Table 4: Certification Requirements for Directors of Vocational Programs/Schools.....6

Table 5: Certification Requirements for Middle Managers in Vocational Programs (Dept Heads, Coordinators, etc.).....7

Table 6: Teacher Certification: Number of States With Performance Examinations for Certification by Program.....8

Table 7: Academic Requirements for Admission to Trade or Technical Exam.....9

Table 8: Technical, Trade Examinations - Examination Format.....9

Table 9: Who Developes the Performance Examinations?.....10

Table 10: Who Administers and Grades Performance Examinations?.....11

Table 11: Who Coordinates the Vocational Certification Process?.....12

LIST OF TABLES CONT'D.

Table 12: Vocational Program Delivery Systems.....13

Table 13: Functions of Professional Development Personnel.....14

INTRODUCTION

In our rapidly changing society, professional educators are faced with the difficult task of upgrading pre-service and in-service programs and personnel. Concurrently, State Departments of Education are charged with upgrading, monitoring, and maintaining the standards of the profession through the teacher certification process. In all cases, teacher trainers, field-based personnel, and state department officials find that the identification of

> ...the qualities that make a successful teacher...(an) issue (which) is fraught with difficulty. Qualities such as sincerity, efficiency, courage, resolution, energy, tact, and personality all spring to mind. The list is seemingly endless, and even after having compiled it, no one is really sure of how it can be used. (Mager and Beach, 19-7, v).

While these "qualities" are recognized as important, most are seemingly "immeasurable." Thus, the vocational certification process, axiomatically attempts to define what a "teacher does," i.e. adopts a functional rather than a qualitative approach to defining a successful vocational teacher. On the surface, the functional approach would appear to be the easiest to resolve. Yet this approach is not without many difficulties. For instance, there has been considerable discussion in the field over what constitutes a "vocational teacher" Gardner,1977,821), and the need for teacher training programs to recogniza and define a "common core." Other aspects of this research project specifically addresses the identification and validation of the "common core competencies" needed by vocational education personnel (Resnick and Carmody, 1977).

The purpose of this survey was to describe the procedures, requirements, and related data for teacher and administrative certification in vocational education in the U.S.A. Such data represents a valuable informatio- base for those persons charged with upgrading professional development and teacher certification standards in their state.

PROCEDURES

Instrument

A six-page survey instrument was developed by Dr. Harold S. Resnick, entitled, "Professional Development in Vocational Education Questionnaire." The instrument was reviewed by several state department officials and Dr. David C. Gardner, Project Consultant. Major suggestions of the reviewers were integrated in the final version of the instrument. The survey was designed to elicit pertinent data regarding vocational teacher and administrative certification, trade/technical examinations, experiential requirements and formal academic requirements. In addition, data was gathered related to the programmatic delivery systems of each state, functions of professional development personnel in each State Department, and administration of the certification process. (Appendix A).

The Sample

The survey was mailed to 50 state personnel development coordinators for vocational education, with a cover letter on Boston University stationery. The letter outlined the purposes of the study, its relationship to the total project, and assured the respondents of the anonymity of their responses. A second mailing was initiated four weeks after the first mailing. It consisted also of the same letter, the survey instrument and a "reminder" note. Copies of the cover letter and reminder note are included in Appendix B.

RESULTS

Return Rate

The first mailing yielded 26 returns for a return rate of 52%. At the time of the cutoff date, one month after the second mailing, 41 returns had been received for a return rate of 82%. Two weeks after the data analysis, a 42nd return was received but was not included in the analysis. The final return rate was 84%.

TEACHER CERTIFICATION REQUIREMENTS

Years of Work Experience Required

Table 1 reports the mean number of years of work experience required for certification (in those states which responded to the individual items) by type of program. A t test analysis revealed that Trade and Industrial, Technical Education, and Health Occupations teachers are significantly ($p = .001$) required to have more years of work experience than vocational agriculture, distributive education, and wage earning home economics teachers for certification.

TABLE 1

Teacher Certification Requirements: Years of Experience

Program	Mean Years	S.D.	Range	Number of Respondents*
Trade & Industrial (industrial/vocational)	3.7	1.9	1-8	38
Technical Education	3.3	1.7	1-6	32
Health Occupations	2.8	1.7	1-8	36
Distributive Education	1.9	1.06	1-7	33
Wage Earning Home Econ.	1.9	.80	1-3	22
Vocational Agriculture	1.8	1.7	1-7	30

*Number of states responding to this item.

Requirements for Permanent (Full) Certification

Table 2 reports mean number of total semester hour credits necessary for permanent certification by program. Means were computed from actual usable responses. (In some instances, items were marked "N/A" or "o" or left blank.) Chi square analysis of proportion of states requiring versus those not requiring

college degrees revealed significantly ($x^2 = 14.86$, $p = .001$) more academic preparation is required for certification in vocational agriculture, distributive education, and wage earning home economics than in technical education, trade and industrial, and health occupations.

However, the extreme variability of the requirements for individual permanent certification in each of the separate program categories should be noted with ranges from 1 to 155 semester hours of academic preparation required.

TABLE 2

Teacher Certification Requirements: Total Semester Credits for Permanent Certification

Program	Mean S.H.[1]	S.D.	Range	No. States Requiring A Degree ** B	M	Total	Number Respondents*
Vocational Agriculture	114.9	42.8	3-155	22	6	28	35
Distributive Education	116.2	10.7	18-155	12	10	22	34
Wage-Earning Home Econ.	97.7	53.4	3-155	15	5	20	28
Technical Education	88.4	59.6	6-155	10	6	16	28
Health Occupations	76.8	59.1	1-155	10	5	15	32
Trade & Industrial (industrial/vocational)	61.8	59.6	4-155	6	5	11	34

Notes:
*Number of states responding to this item.
**B. = bachelors degree; M. = master's degree
1= Some states actually specified an exact number of hours. Others indicated "bachelors" or "masters" or "bachelors plus 30," etc. In these cases, the bachelors degree was entered as 125 s.h., the masters as 155 s.h. All quarter-hour specifications were converted to semester hours.

Academic Preparation for First Teaching Assignment

Table 3 reports the mean number of semester hours required for an entering teacher in the six program categories. Note the extreme variability of require-

ments (range, overall, from 1 to 125 semester hours of work). Chi square analysis found that states are significantly more likely to require a college degree for entry level teachers in vocational agriculture, distributive education, and wage earning home economics than in trade and industrial, technical, and health education ($x^2 = 29.90$, $p = .001$).

TABLE 3

Teacher Certification: Total Semester Hours or Degree Requirements to be Completed Prior to First Teaching Assignment

Program	Mean S.H.[1]	S.D.	Range	Bachelors Required	Number of Respondents*
Vocational Agriculture	117.2	26.8	3-125	32	37
Distributive Education	117.2	23.9	3-125	31	36
Wage-Earning Home Econ.	109.4	38.8	3-125	29	34
Trade & Industrial (industrial/vocational)	52.4	57.4	1-125	11	26
Health Occupations	60.6	59.1	1-125	14	32
Technical Education	86.3	54.8	2-125	17	26

Notes:

*Number of states responding to this item.

1 Some states actually specified an exact number of semester hours. Others indicated a "bachelors" degree was required. In this case, the bachelor's degree was entered as "125 semester hours." All quarter-hour specifications were converted to semester hours.

CERTIFICATION REQUIREMENTS FOR ADMINISTRATORS, MIDDLE MANAGERS, AND COOPERATIVE EDUCATION COORDINATORS

Certification Requirements for Directors of Vocational Programs/Schools

Table 4 reports the average number of years of teaching and supervisory experience required for certification in this category along with academic preparation requirements. Of the 26 states responding to this item, 100% require a degree.

TABLE 4

Certification Requirements for Directors of Vocational Programs/Schools
(Summary by Number of States Responding)

Requirement	Mean Number of Years	Standard Deviation	Number of Respondents
Teaching Experience	$\bar{X}$ = 3.65 years	s.d. = .89	26
Semester Hours of College Credits	$\bar{X}$ = 147 s.h.	s.d. = 12.4	26
Supervisory Experience	$\bar{X}$ = 3.13 years	s.d. = 1.4	11
Degree	N/A		26
Examination	N/A		2

Certification Requirements for Middle Managers

Table 5 reports the years of teaching experience and academic preparation required by those states responding to this item for persons to be certified as department chairman, curriculum coordinators, etc. As predicted, significantly more years of teaching experience ($t = 2.040$, $p = .05$) and academic preparation ($t = 2.84$, $p = .01$) are required for Directors than for Middle Managers.

(Table 5 on next page)

TABLE 5

Certification Requirements for Middle Managers in Vocational Programs
(Department Heads, Curriculum Coordinators, etc.)

Summary by Number of States Responding

Requirement	Mean Number of Years	Standard Deviation	Number of Respondents
Teaching Experience	$\bar{X}$ = 3.08 years	s.d. = .94	19
Semester Hours of College Credits	$\bar{X}$ = 118.2 s.h.	s.d. = 48.8	19
Degree	N/A		16
Examination	N/A		0

Certification Requirements for Cooperative Education Coordinators

Only 19 states responded to this open-ended item. Of the 19 states responding, 16 (84%) stated academic requirements in terms of semester hours ($\bar{X}$ = 90.5 semester hours; s.d. = 59; range = 1.5 hours to 152 hours). Ten states noted a work experience requirement ($\bar{X}$ = 2 years; s.d. = .83; range 1 year to 3 years). This data is a summary of information provided in an "open-ended" item and should be interpreted with caution.

PERFORMANCE EXAMINATIONS

Performance Examinations as Requirements for Certification

Table 6 reports the number of states by program category which require performance examinations for teacher certification. Also reported are the number of states where the examination is optional. Performance examinations are significantly more likely, among the states reporting the use of examinations, to be required for trade and industrial and technical education than for the other categories (chi square = 9.34, p = .01).

(Table 6 on next page)

TABLE 6

Teacher Certification: Number of States with Performance Examinations for Certification by Program*

Program	No. States Required	No. States Optional*
Trade & Industrial	11	5
Technical	7	1
Vocational Agriculture	1	1
Health Occupations	1	1
Wage-Earning Home Econ.	1	1

Notes: *Two states offered examinations for college credits but not required for certification. One state plans to require examinations in two years. Only one responding state required examinations in all of the above fields.

Admission Requirements to Performance Examinations

Table 7 reports the academic requirements for admission to Performance examinations by program category. Note that only 6 states have academic admissions requirements for trade and industrial education programs, and that in the case of wage-earning home economic teachers, there were no semester hour requirements reported. Ten states reported that they required a fee in a specific amount ($\bar{X}$ fee = $100.00; s.d. $23.50) for admission to the examination. Nine states reported a "years of trade experience requirement" prior to examination ($\bar{X}$ years of trade experience = 4 years; s.d. 2.1 years). One state reported a high school diploma as a requirement, one state, "freshman status," 1 state, "having a job as a teacher."

(Table 7 on next page)

TABLE 7

Academic Requirements for Admission to Trade or Technical Examination

Program	Number of States with a S.H. Requirement	Mean S.H.	S.D.	Range
Trade & Industrial (industrial/vocational)	6	30.1	24.5	2-64
Vocational Agriculture	1	124.0	-	-
Distributive Education	1	124.0	-	-
Health Occupations	5	12.3	19.2	1-45
Technical Education	2	33.0	43.8	2-64
Wage-Earning Home Econ.	0	0	0	N/A

Examination Format

Table 8 reports the "format" checked by the responding states. In some states, the examination included more than one type of examination. Therefore, a state may be represented in two or more categories. In only one state, the "other" section was described as a competency-based examination.

TABLE 8

Technical, Trade Examinations
Examination Format

Type	No. Req. States	No. Optional States
Written	12	3
Performance	11	3
Oral	4	1
Other	3	0

Who Develops the Examinations?

Of those responding to this item, twelve selected the NOCTI examinations. The balance were fairly evenly distributed among the other categories with the exception of the "state department of education personnel" category.

TABLE 9

Who Develops the Performance Examinations?

Agency	Number Responding
NOCTI Exams	12
Other	5
Vocational Advisory Group	4
Vocational Education Teacher Trainers	4
Local vocational teachers	2
State department personnel	0

Who Administers and Grades Examinations?

By and large, the greatest proportion of states responding indicated that teacher training institutions were responsible for this function. Only 1 state indicated that state department personnel performed these functions. In some instances, however, the teacher training institution was also the regional NOCTI agency.

(Table 10 on next page)

TABLE 10

Who Administers and Grades Performance Examinations?

Agency	Number of States
Regional NOCTI administration agency	6
State Department Personnel	1
Teacher Training Institution	12
Local vocational administrators and/or teachers	2
Other	2

Are the States Satisfied with their Examination System?

Nineteen states responded to this item. (These respondents included some states which do not now have examination systems but plan to implement them.) Twelve states said "Yes" and seven states said "No." Thus, the states responding to this qualitative question were about evenly divided ($x^2 = 1.31$, NS).

What About Certification for Academic Teachers?

Twenty of the forty-one respondents (49%) indicated that their state contained vocational schools which also had academic programs. Twenty-one of the forty-one states (51%) did not. Of the twenty states with academic programs in vocational schools, only four indicated that their state required these academic teachers to meet additional requirements (above and beyond regular certification requirements for academic teachers) to teach in vocational schools. In all four states these requirements were in the form of additional, special courses.

Who Coordinates the Vocational Certification Process?

Table 11 reports the frequencies of responses to various types of teacher

certification process control. Please note that totals in this table are larger than the sample (N-41) who responded. In many instances, respondents checked more than one item. Thus data from this table must be interpreted with caution.

TABLE 11

Who Coordinates the Vocational Certification Process?

Agency	Number of States
State Department of Education Division of Teacher Certification	26
State Department of Education Division of Vocational Education	12
Teacher Training Institution under State Department Teacher Certification Division	10
Teacher Training Institution under State Department Division of Vocational Education	5
Other	5

VOCATIONAL PROGRAM DELIVERY SYSTEMS

Each respondent was asked to indicate "Yes" or "No" to the question of whether or not the delivery system described in Table 12 was present in their state's delivery system. Secondly, they were asked to circle the "two most common" delivery systems in their states. Thus the most "common index" in Table 12 represents a frequency count of the number of times the item was circled as one of the two most common systems in the responding state.

By far the most common and frequently checked system is the secondary level vocational program in a comprehensive school. Of the 39 states responding to this item, no state checked "No."

(Table 12 on next page)

TABLE 12

Vocational Program Delivery Systems

Type of Program	"Most Common" Index[1]	Frequency (Total No. States)	No. States Not Present
Secondary level vocational programs in a comprehensive school	15	39	0
Post-secondary vocational-technical programs (junior or community college ties)	9	34	3
Secondary vocational programs or schools where academics taken in home high schools	7	26	10
Post-secondary vocational/technical programs (secondary level ties)	5	21	13
Secondary level vocational/regional schools with both academic and vocational programs	3	20	16
Private trade or technical schools	2	28	6

Note: [1]Each respondent was asked to indicate "Yes" or "No" to each of the delivery systems which were present or not in their own states. Next they were asked to circle the two "most common" forms of delivery of those present in their state. Thus, the "most common" index is a frequency count of the number of times this item was circled as "a most common" form of delivery system.

FUNCTIONS OF PROFESSIONAL DEVELOPMENT PERSONNEL

Thirty-six states reported "full-time" personnel in professional development. ($\bar{X}$ = 7.7 persons; s.d. 33.8.) There was great variance in the responses to this item, ranging from .5 to 201 persons.

In terms of the functions of the professional personnel, 39 states responded. Table 13 reports the frequency of assigned functions.

(Table 13 on next page)

TABLE 13

Functions of Professional Development Personnel
(N = 39)

Function	Index (Frequency)
In-Service Training Coordination	39
Proposal review, 553 programs	37
Personnel screening, 552 programs	36
Monitor vocational certification programs	21
Other	12
Process individual vocational certification requests	8
Conduct vocational certification tech exams	3

SUMMARY AND CONCLUSIONS

The purpose of this study was to collect and analyze current information regarding the certification requirements and procedures for vocational education personnel throughout the United States, to serve as decision-making input for Massachusetts. From the analysis of the data as presented, the following conclusions and observations may be made.

1. The survey itself received a much higher response rate than anticipated by the researchers. This may well be considered an indication of a high degree of interest in this topic. This may indicate also a need to examine further the relationship between competency studies and the related requirements for both certification and continuing professional development.

2. For many of the questions, the responses for the trade and industrial, technical, and health areas were significantly different than for the distributive,

home economics, and agricultural areas. Consequently, these six major categories may generally be viewed as two broad groupings for the purpose of this study. Historically, the first group has not required traditional academic (degree level) preparation, while the second group has maintained such requirements. This may well explain the significant differences found between these groups.

3. The first group (trade and industrial, technical, and health) typically requires more employment experience, is more likely to require a performance examination, requires less academic credentials for initial employment, and fewer credentials for full certification. The trend, however, does seem to be directed to less field experience and greater academic requirements.

4. For certification as a vocational administrator, requirements usually include at least three years of teaching experience, a masters degree, and several years of supervisory experience. Consequently, vocational teachers without academic preparation must seek further academic training in order to qualify for administrative positions.

5. Performance requirements (technical examinations) are required much more extensively for the trade and industrial and technical areas than for any other group. Even for trade and industrial, however, only eleven states required them. Where required, the examinee, on the average, must have completed his/her trade experience, and pay an examination fee of one hundred dollars. Virtually all performance examinations contain a written component. The largest single category of exams used were the NOCTI exams.

6. Most states coordinate the certification process through the State Department of Education, in either the Division of Teacher Certification or the Division of Vocational Education. A substantial proportion coordinate this process through teacher training institutions.

7. The most common delivery systems for vocational education are secondary level programs in comprehensive school systems, or at the post-secondary level. In next most common systems, the separate facility at the secondary level (only) for the vocational component was found, with academics offered at the home high school.

8. Most states use their vocational professional development office primarily for the purpose of coordinating in-service training and performing the "section 552 and 553" functions of the Education Professions Development Act. Their role regarding vocational certification tends to be in the area of monitoring the process as it is implemented through a state teacher training institution.

In reviewing the results of this study, it is apparent that Massachusetts is atypical in a number of ways. The determination of the relative advantage or disadvantage of these distinctions should be determined by the State Department of Education, the State Advisory Council, and representation from the respective teacher training institutions and local program administrators. Following are the major areas in which Massachusetts tends to depart from the general national patterns for vocational education.

1. Trade and industrial and technical education teachers are required to have more trade experience before teaching in Massachusetts than in most other states. For these teachers, this is one of the few states in which the performance examinations are designed and administered directly by State Department personnel.

2. Massachusetts is the only state that reported a required examination for vocational education personnel at the supervisory and administrative elevels.

3. Massachusetts is one of the few states in which the certification process is conducted directly by State Department personnel, and not through a teacher training institution.

4. Although more rigorous technical and performance standards are applied

for the initial acceptance of vocational teachers in this state, the academic requirements are less demanding than in most other states (i.e. total number of credit hours required).

5. Almost all states require a baccalaureate degree with a major in distributive education for certification in that field. This state requires only a 60 clock hour program in distributive education, with a degree in a related area.

6. The Office of Professional Development in Massachusetts has more direct responsibility for certification procedures, especially regarding the processing of forms, reviewi g and approving cpurses, and administering examinations than most other states. Most other states coordinate this effort through teacher training institutitons. Yet, this state has fewer personnel to perform these functions than most other states.

7. Massachusetts has less stringent academic requirements for vocational education personnel at the supervisory and administrative levels, yet is the only state to require a written and oral examination for these same positions.

8. Most states use comprehensive schools and post-secondary institutions for the delivery of vocational education. The most widespread system in this state is a separate vocational-technical school offering both vocational and academic programs.

References

Gardner, D. C. Career, vocational and technical education. In: Knowles, Asa (Ed.) International Encyclopedia of Higher Education, Jossey-Bass Publishers, 1977.

Mager, R. F. and Beach, K. M., Jr. Developing vocational instruction. Palo Alto, California: Fearon Publishers, 1967.

Resnick, H.S., and Carmody, S.H. Analysis and Synthesis of Competencies Needed by Vocational and Career Educators. Mass. State Dept. of Education, 1977.

Resnick, H.S., and Carmody,S.H. Validation of the Competencies Needed by Vocational Education Teachers, Middle Managers, and Administrators. Mass. State Dept. of Education, 1977.

APPENDIX A

Survey Instrument

Boston University

Department of Business and Career Education

PROFESSIONAL DEVELOPMENT IN VOCATIONAL EDUCATION QUESTIONNAIRE

Project Director: Harold S. Resnick
Survey Consultant: David C. Gardner

Introduction: This research project is being funded and supported by the Office of Professional Development, Division of Occupational Education, Massachusetts Department of Education. The work is being conducted by Dr. Harold S. Resnick, Department of Business and Career Education, Boston University. The purpose of this study is to identify current policies and procedures for vocational education professional development being used in State Department of Education, for the purpose of establishing national needs and directions. All State Departments of Education are included in this study. All participants will receive a copy of the results of the study.

Instructions: Please indicate your response to each item. Whenever necessary, write in the information required. Place an N.A. if item does not apply to your situation. If the information requested for some of these items is contained in your State Department publications, please attach the publications and we will complete those items for you.

I. Certification or Approval Requirements for Vocational Education Personnel

A. Trade and Industrial (or industrial/vocational) teachers

1. Years of trade or industrial experience required _____
2. Total semester hour credits that must be completed prior to taking technical (trade) examination (indicate N/A if no exam is required) _____
3. Total semester hour credits that must be completed prior to first teaching assignment (or degree if applicable) _____
4. Total semester hour credits (or degree) required for full (permanent) certification _____
5. On-going annual requirements (in-service) for maintaining certification _____

B. Vocational Agriculture Teachers

1. Years of trade or industrial experience required _____
2. Total semester hour credits that must be completed prior to taking technical (trade) examination (indicate N/A if no exam is required) _____
3. Total semester hour credits that must be completed prior to first teaching assignment (or degree if applicable) _____
4. Total semester hour credits (or degree) required for full (permanent) certification _____
5. On-going annual requirements (in-service) for maintaining certification _____

C. Distributive Education Teachers

1. Years of trade or industrial experience required _____
2. Total semester hour credits that must be completed prior to taking technical (trade) examination (indicate N/A if no exam is required) _____
3. Total semester hour credits that must be completed prior to first teaching assignment (or degree if applicable) _____
4. Total semester hour credits (or degree) required for full (permanent) certification _____
5. On-going annual requirements (in-service) for maintaining certification _____

D. Health Occupations Teachers

1. Years of trade or industrial experience required _____
2. Total semester hour credits that must be completed prior to taking technical (trade) examination (indicate N/A if no exam is required) _____
3. Total semester hour credits that must be completed prior to first teaching assignment (or degree if applicable) _____
4. Total semester hour credits (or degree) required for full (permanent) certification _____
5. On-going annual requirements (in-service) for maintaining certification _____

E. Technical Education Teachers

1. Years of trade or industrial experience required _____
2. Total semester hour credits that must be completed prior to taking technical (trade) examination (indicate N/A if no exam is required) _____
3. Total semester hour credits that must be completed prior to first teaching assignment (or degree if applicable) _____
4. Total semester hour credits (or degree) required for full (permanent) certification _____

5. On-going annual requirements (in-service) for maintaining certification _____

F. Cooperative Education Coordinators

1. Is there a certification area for cooperative education coordinators? _____ yes _____ no
2. If yes, please specify the requirements:

_____

_____

G. Wage - Earning Home Economics Teachers

1. Years of trade or industrial experience required _____
2. Total semester hour credits that must be completed prior to taking technical (trade) examination (indicate N/A if no exam is required) _____
3. Total semester hour credits that must be completed prior to first teaching assignment (or degree if applicable) _____
4. Total semester hour credits (or degree) required for full (permanent) certification _____
5. On-going annaul requirements (in-service) for maintaining certification _____

H. Middle Managers in Vocational Programs (department heads, curriculum coordinators, etc.)

1. Does your state certify personnel in these categories? _____ yes _____ no
   If yes, please answer the following:
2. Years of teaching experience required for certification _____
3. State Department professional examination required? _____ yes _____ no
4. Degree or total semester hours of college credits required _____

I. Directors of Vocational Programs/Schools

1. Does your state certify personnel in these categories? _____ yes _____ no
   If yes, please answer the following:
2. Years of teaching experience required for certification _____
3. Years of supevisory experience required _____
4. State Department professional examination required? _____ yes _____ no
5. Degree or total semester hours of college credits required _____

J. Academic Teachers in a Vocational School (where applicable)

1. Does your state contain vocational schools (or regional vocational school) at the secondary level that include also academic programs? _____ yes _____ no

   If yes, please answer the following two questions
   If no, proceed to section K

2. Are the academic teachers in these programs required to meet any additional requirements to teach their subjects in vocational schools? _____ yes _____ no

3. If yes, please specify these requirements _____

   _____

K. Who coordinates the vocational certification process in your State in terms of reviewing each applicant's credentials and requirements?

_____ Teacher Training Institution, under jurisdiction of State Department, Division of Vocational Education
_____ Teacher Training Institution, under jurisdiction of State Department, Division of Teacher Certification
_____ State Department of Education, Division of Vocational Education
_____ State Department of Education, Division of Teacher Certification
_____ Other. Please specify _____

_____

_____

II. Technical (trade)Examinations for Certification of Vocational Teachers

A. Please check (✓) all areas for which technical (trade) examinations are required prior to certifying the vocational teacher

_____ Trade and industrial
_____ Technical
_____ Vocational agriculture
_____ Health occupations
_____ Distributive education
_____ Wage earning home economics
_____ Other. Please specify _____

B. What type of test is given (please check all that apply)

_____ Written exam
_____ Performance exam
_____ Oral exam (interview)
_____ Other. Please specify _____

C. Who developed these examinations?

_____ NOCTI exams
_____ Developed by State Department personnel
_____ Developed by vocational education teacher trainer(s)
_____ Developed by local vocational teacher (s)
_____ Developed by vocational advisory group for the area
_____ Other. Please specify _____

_____

D. Who administers and grades these examinations?

_____ Regional NOCTI administration agency
_____ State Department personnel
_____ Teacher Training Institution
_____ Local vocational administrators and/or teachers
_____ Other. Please specify _____

_____

E. What are the admission requirements to these examinations? (please respond to all that apply)

_____ Payment of fee. How much?_____
_____ Years of trade experience. How much? _____
_____ Completion of educational requirements. How many credits? _____
_____ Other. Please specify _____

_____

F. Are you satisfied with your examination system? ____ ____
yes no

Do you wish to comment?_____

_____

III. Organization of Vocational Programs in your State - Following is a list of the six most common vocational education delivery systems. Indicate yes or no whether included in your state system. Then, please circle the "yes" of the two most commonly found delivery systems in your state.

A. Secondary level vocational programs in comprehensive school systems.

____ ____
yes no

B. Secondary level vocational schools or skill centers offering vocational programs only. Students take academics in home high schools.

____ ____
yes no

C. Secondary level vocational schools and/or regional vocational schools with full (vocational and academic) programs.

____ ____
yes no

D. Post-secondary vocational (technical) programs tied to secondary level vocational schools or programs.

_____ yes _____ no

E. Post-secondary vocational (technical) programs tied to junior or community colleges.

_____ yes _____ no

F. Private trade or technical schools.

_____ yes _____ no

IV. Background Data

A. Name of your State _____

B. Number of individuals (full-time, professional) employed for professional development in your Division of Vocational Education _____.

C. Functions of your Vocational Education Office of Professional Development. (Please check all that apply)

_____ Personnel screening for 552 programs
_____ Proposal review for 553 programs
_____ Monitor vocational certification programs
_____ Process individual vocational certification requests
_____ Conduct vocational certification technical examinations
_____ Coordinate in-service vocational teacher training efforts
_____ Other. Please specify _____

_____

Thank you very much

Please return in the enclosed envelope to:

Dr. Harold S. Resnick
Boston University
Department of Business and Career Education
765 Commonwealth Avenue
Boston, Massachusetts 02215

APPENDIX B

Cover Letter

Follow-Up Note

Boston University

School of Education
765 Commonwealth Avenue
Boston, Massachusetts 02215

Department of Business and Career Education

The Office of Professional Development, Division of Occupational Education, Massachusetts State Department of Education is assessing its current practices and procedures. In an attempt to establish requirements, regulations, and processes consistent with national directions and trends, John Morine and John McDonagh who coordinate this process, have requested and funded this study.

The attached questionnaire requests information about the requirements and procedures in your State. The same questionnaire is being sent to all Vocational Offices of Professional Development throughout the United States. The results will be presented in a summary document, protecting the anonymity of responses from any individual respondent. All cooperating States will, of course, receive a copy of the summary document.

May I ask for your participation in this study? Please complete the questionnaire and return it in the enclosed stamped, self-addressed envelope. Thank you very much for your assistance with this effort.

Sincerely yours,

Harold S. Resnick

Harold S. Resnick
Associate Professor and
Project Director

jmc

For information: Dr. David C. Gardner
Chairperson
School of Education
Dept. of Business and Career Education
765 Commonwealth Avenue
Room 1502
Boston, Ma 02215
(617) 353-3218

Boston University policy prohibits discrimination on the basis of race, sex, religion, age, color, creed, handicap, national and ethnic origin, and marital and parental status. This policy extends to all rights and privileges in the recruitment, admission, and employment of, as well as financial assistance to, students; the recruitment and employment of faculty and staff; and the operation of any of the University's programs and activities. Inquiries concerning the application of or compliance with Title IX and other state and federal laws and regulations prohibiting such discrimination should be addressed to the University's Director of Affirmative Action (881 Commonwealth Avenue, Boston, MA 02215) or to the Director of the United States Office for Civil Rights, or other appropriate government agency.